



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/833,460	04/11/2001	Byeong Moon Jeong	B-1537	3305
32215	7590	01/16/2004	EXAMINER	
KLARQUIST SPARKMAN, LLP 121 SW SALMON STREET, SUITE 1600 ONE WORLD TRADE CENTER PORTLAND, OR 97204			YOON, TAE H	
			ART UNIT	PAPER NUMBER
			1714	

DATE MAILED: 01/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/833,460

Applicant(s)

JEONG ET AL.

Examiner

Tae H Yoon

Art Unit

1714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 08 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) 18--30 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 and 31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_. 6) ☐ Other: \_\_\_\_\_

The closing ")" is missing after "poly(DL-lactic acid" in line 3 of claim 7.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 3-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The recited molecular weight is indefinite in not specifying a particular average molecular weight such as a number or weight average molecular weight.

Applicant states that the claims refer to the weight average molecular weight, but claims do not recite said weight average molecular weight, and such statement has no support in the originally filed specification. See Ex parte Simpson, 61 USPQ2d 1009 and enclosed copies of pages 32-33 of Polymer Science Dictionary, 2<sup>nd</sup> Ed. by Mark Alger, Chapman & Hall, 1997 wherein various average molecular weights are taught.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

Art Unit: 1714

only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 31 is rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Domb et al (US 6,007,845).

The copolymer particles of Domb et al is biodegradable, and thus the instant invention lacks novelty.

Claims 1-15, 17 and 31 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Cha et al (US 5,702,717).

Cha et al teach the instant thermogelling biodegradable aqueous polymer solution of ABA or A(BA)<sub>n</sub> block copolymer in abstract and at col. 7, line 31 to col. 10, line 24. Thus, the instant invention lacks novelty.

Claims 1-17 and 31 are rejected under 35 U.S.C. 103(a) as obvious over Cha et al (US 5,702,717) in view of Domb et al (US 6,007,845),

The instant invention further recites a cell over Cha et al. However, the utilization of the cell as a bioactive agent is well known as taught by Domb et al (col. 11, lines 41-44).

It would have been obvious to one skilled in the art at the time of invention to utilize the art well known cell taught by Domb et al in Cha et al since Cha et al teach employing various bioactive agents and drugs.

Claims 1, 3-15 and 17 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Rath et al (US 6,004,573).

Rath et al teach the instant thermogelling biodegradable aqueous polymer solution of ABA block copolymer in abstract and examples and at col. 1, lines 7-24, col. 6, line 31 to col. 11, line 67. Various anti-cancer agents are taught at col. 12, lines 28-42. Thus, the instant invention lacks novelty.

Claims 1 and 3-17 are rejected under 35 U.S.C. 103(a) as obvious over Rath et al (US 6,004,573) in view of Domb et al (US 6,007,845), Prokop (2003/0035838) or Cha et al (US 5,702,717).

The instant invention further recites various anti-cancer agents such as taxol and a cell and polyester blocks such as poly( $\epsilon$ -caprolactone) over Rath et al. However, the utilization of such agents is well known as taught by Domb et al (cells, col. 11, lines 41-44), Prokop ([0061]) or Cha et al (col. 10, lines 17-23). Cha et al also teach various biodegradable polyester blocks at col. 7, lines 39-48.

It would have been obvious to one skilled in the art at the time of invention to utilize the art well known drugs taught by Domb et al, Prokop or Cha et al in Rath et al since Rath et al teach employing various bioactive agents and drugs or to utilize


Art Unit: 1714

various biodegradable polyester blocks of Cha et al in Rath et al since Rath et al teach the use of a biodegradable polyester block and since Cha et al teach and equate the biodegradable polyester block of Rath et al and other biodegradable polyester blocks absent showing otherwise.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tae H Yoon whose telephone number is (571) 272-1128. The examiner can normally be reached on Mon-Thu.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

  
Tae H Yoon  
Primary Examiner  
Art Unit 1714

THY/January 5, 2004